

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 1 084 800 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
27.03.2002 Bulletin 2002/13

(51) Int Cl.7: B25B 27/14

(43) Date of publication A2:
21.03.2001 Bulletin 2001/12

(21) Application number: 00307961.3

(22) Date of filing: 14.09.2000

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 15.09.1999 US 154163 P
15.08.2000 US 638345

(71) Applicant: EMHART INC.
Newark, Delaware 19711 (US)

(72) Inventors:
• Newton, David W.
Bethel, Connecticut 06810 (US)

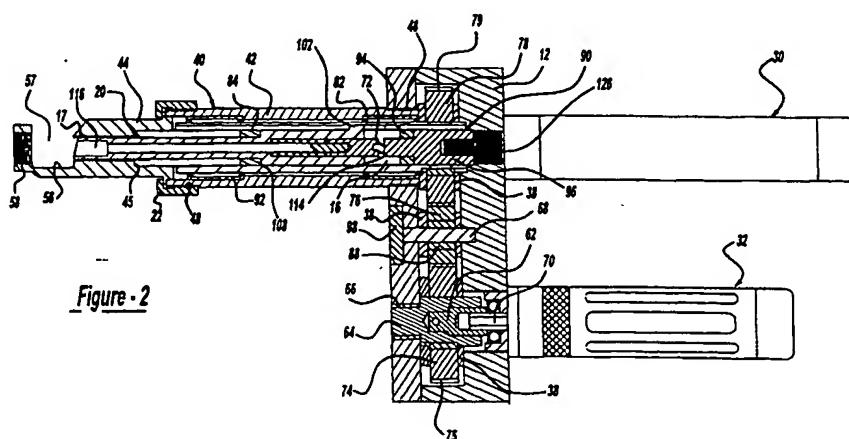
• Giannakakos, William
Dansbury, Connecticut 06811 (US)
• Lutkus, William J.
Watertown, Connecticut 06795 (US)
• Bardelli, Michale
New Milford, Connecticut 06776 (US)

(74) Representative: Harries, Simon George et al
Black & Decker
Patent Department
210 Bath Road
Slough, Berkshire SL1 3YD (GB)

(54) Power installation tool for helical coil inserts

(57) A tool for installing a helical coil insert in a tapped hole formed in a workpiece includes a tubular body having a bore extending along its axis, a mandrel coaxially disposed in the bore of the tubular body, a punch coaxially disposed in a bore of the mandrel, a motor for rotating the mandrel, and an air cylinder for applying an axial force to the punch. The tubular body includes a recess at one end for carrying a helical coil in-

sert in alignment with the bore. An opening in the tubular body allows a user access to the recess. The mandrel is movable from a position retracted from the helical coil insert, to a position engaging the helical coil insert, and to a position installing the helical coil insert a selected depth in the tapped hole of the workpiece. The punch slides axially in the bore of the mandrel to remove the tang from the helical coil insert upon installation of the helical coil insert in the tapped hole.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 4 172 314 A (BERECZ IMRE ET AL) 30 October 1979 (1979-10-30) * column 2, line 19 - column 2, line 28 * * column 2, line 39 - column 2, line 66 * * column 3, line 11 - column 3, line 24 * ---	1-3, 8-12, 15-18,20	B25B27/14
A	GB 1 068 323 A (SECR DEFENCE) 10 May 1967 (1967-05-10) * figure 1 *	4,5,10	
A	US 5 172 842 A (VISCIO DONALD P ET AL) 22 December 1992 (1992-12-22) * the whole document *	1,6,10, 13,16	
A	EP 0 318 726 A (BOLLHOFF & CO) 7 June 1989 (1989-06-07) * the whole document *	1,7,10, 14,16	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B25B B23P
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
MUNICH	25 January 2002	Kühn, T	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 7961

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-01-2002

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4172314	A	30-10-1979	NONE			
GB 1068323	A	10-05-1967	NONE			
US 5172842	A	22-12-1992	NONE			
EP 0318726	A	07-06-1989	DE DE DE EP	3740560 A1 3887655 D1 8717987 U1 0318726 A2	08-06-1989 17-03-1994 11-06-1992 07-06-1989	